

Outcomes and Insights from the RETRACE Good Practices on Circular Economy

Original

Outcomes and Insights from the RETRACE Good Practices on Circular Economy / Pereno, A. - In: Good Practices Guide: Systemic Approaches for a Circular Economy / Pallaro A., Pereno A.. - STAMPA. - Torino : Umberto Allemandi, 2018. - ISBN 9788842224693. - pp. 88-92

Availability:

This version is available at: 11583/2712072 since: 2018-09-18T16:45:09Z

Publisher:

Umberto Allemandi

Published

DOI:

Terms of use:

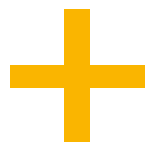
openAccess

This article is made available under terms and conditions as specified in the corresponding bibliographic description in the repository

Publisher copyright

(Article begins on next page)

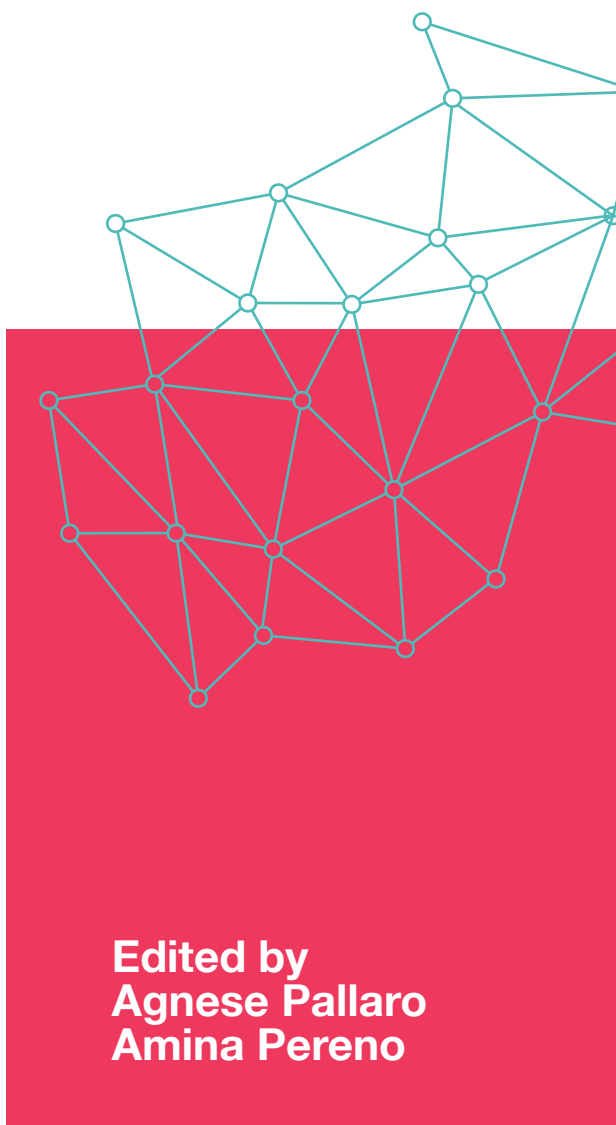
retrace



Good Practices Guide

**Systemic Approaches
for a Circular Economy**

volume 2



**Edited by
Agnese Pallaro
Amina Pereno**

Allemandi



European Union
European Regional
Development Fund

GOOD PRACTICES GUIDE: SYSTEMIC APPROACHES FOR A CIRCULAR ECONOMY

EDITED BY
AGNESE PALLARO
AMINA PERENO

Allemandi

GOOD PRACTICES GUIDE: SYSTEMIC APPROACHES FOR A CIRCULAR ECONOMY

Edited by

Agnese Pallaro

Amina Pereno

RETRACE Project Coordinator

Silvia Barbero

RETRACE Lead Partner

Politecnico di Torino (Italy)

RETRACE Partners

Piedmont Region (Italy)

Azaro Foundation (Spain)

Beaz Bizkaia (Spain)

Higher School of Advanced Industrial Technology / ESTIA (France)

Association for Environment and Safety in Aquitaine / APESA (France)

Government Office for Development and European Cohesion Policy (Slovenia)

North-East Regional Development Agency (Romania)



European Union
European Regional
Development Fund

Senior Editors

Agnese Pallaro

Amina Pereno

Assistant Editor

Carolina Giraldo Nohra

Authors

Tiziana Dell'Olmo

Carolina Giraldo Nohra

Eilish O'Loughlin

Agnese Pallaro

Amina Pereno

Cover Design

Carolina Giraldo Nohra

First Edition
isbn 978-88-422-2469-3

© 2018 RETRACE project

© 2018 Umberto Allemandi srl
Printed in Turin in the month of March 2018
For Umberto Allemandi Publishing House

All Rights Reserved

No part of this publication may be reproduced in any manner without permission.

This publication is possible thanks to the support of Interreg Europe and the European Regional Development Fund (ERDF) to the RETRACE Project.

www.interregeurope.eu/retrace

This publication reflects the authors' views only and the Interreg Europe Programme authorities are not liable for any use that may be made of the information contained therein.

List of Abbreviations

EC European Commission

CE Circular Economy

FV Field Visit

GP Good Practice

HD Holistic Diagnosis

LP Lead Partner / Politecnico di Torino

MA Managing Authority

PGT Policy Gap Thread

PLP Policy Learning Platform

PRR Peer Review Report

PRW Peer Review Workshop

RAP Regional Action Plan

SD Systemic Design

SME Small and Medium Enterprise

Table of Contents

7	1.	Introduction CAROLINA GIRALDO NOHRA
11	2.	Steps and Methods for Good Practices Selection AGNESE PALLARO
11	2.1	Good Practices Selection for Field Visits
15	2.2	Selection of the Best 30 Good Practices
16	2.3	Good Practices and Policy Gaps
17	2.4	Strengths and Weaknesses of the Methodology
19	3.	RETRACE Good Practices on Circular Economy TIZIANA DELL'OLMO AND AGNESE PALLARO
20	3.1	Support Collaboration between Sectors
32	3.2	Raising Involvement and Knowledge of Operators Concerning the Circular Economy
43	3.3	Policy Regulations on Circular Economy
48	3.4	Tailored Policy Measures on Circular Economy
60	3.5	Policy in Support to Business and Market Development for Circular Economy Activities
73	3.6	Policy Focused on SMEs and Micromanufacturing

84	4.	Sharing of Experiences through the Policy Learning Platform	EILISH O'LOUGHLIN
84	4.1	Description of the Policy Learning Platform: Structure, Functioning, Aims	
85	4.2	The Role of the Policy Learning Platform within Interreg Europe	
86	4.3	Preliminary Results from the Policy Learning Platform	
88	5.	Outcomes and Insights from the RETRACE Good Practices on Circular Economy	AMINA PERENO
88	5.1	Results Achieved through the Good Practice Collection Methodology	
89	5.2	Guidelines and Future Directions for Regional Transition towards Circular Economy	
92	5.3	The RETRACE Policy Road Map for a Systemic Approach on Circular Economy	
93		Glossary	
96		Authors' Biographies	

5. Outcomes and Insights from the RETRACE Good Practices on Circular Economy

AMINA PERENO

The selection methodology and the final collection of Good Practices (GPs), outlined in the previous chapters, make a significant contribution to the body of knowledge concerning the main political needs to enhance the ongoing transition towards a Circular Economy (CE). The GPs provide an overview of the existing private and public bodies that are contributing in different fields to the implementation of circular business models, as well as to the knowledge creation and inter-stakeholder cooperation in the area of a CE.

The selection included 30 GPs that have been mapped and analysed during the seven Field Visits planned in the RETRACE Interreg Europe project. However, the developed methodology has defined a repeatable and adaptable model that could be effectively applied to other regions, to share and spread the achieved results. Furthermore, the GP collection allowed to establish critical emerging needs that European and regional policies should address to boost circular innovation both at local and international level. Five policy guidelines emerged from the selection (cf. par. 5.2), based on practical challenges that private enterprises and public institutions are facing in putting in place business and services related to a CE.

5.1 RESULTS ACHIEVED THROUGH THE GOOD PRACTICES COLLECTION METHODOLOGY

The RETRACE research methodology described in the publication “Systemic Design Method Guide for Policymaking: A Circular Europe on the Way” (Barbero, 2017) is based on the Systemic Design approach, which starts from the Holistic Diagnosis (HD) tool (Bistagnino, 2011) to define the state-of-the-art of a complex system. In the RETRACE project, the HD was crucial to analyse the regional framework (step 1), the current policies (step 2), and the primary economic and industrial sectors (step 3) of each of the five regions involved in the project. The identification of GPs and the personal knowledge and exchange of experiences during the FVs have been core activities of RETRACE, in line with the goals of the Interreg Europe Programme. However, the two processes have operated in complete synergy: while the HD has allowed to draw up a comprehensive overview of each regional context, the GP selection enabled each partner to map the existing public and private realities on its territory, to integrate its vision on the state-of-the-art. Overall, the HD and the GP selection played a complementary role in fully understanding the potentials and criticalities of the regions involved.

Another important outcome of the GP selection derives from the two-level structure of the applied methodology. The first level of the GP selection was carried out by each partner to define a shortlist of 15 local GPs that could be suitable for the FV. This process enabled a critical reading of the practices existing in the regional framework, allowing partners to distinguish the case studies that could be interesting, but still bound to the idea of a Linear Economy, from those that represent cutting-edge practices in the field of a CE. The second level of selection focused on the identification of the best 8 GPs which may serve as outstanding examples of circular innovation and could give a practical answer to the Policy Gaps highlighted in the project, thus supporting the definition of the Regional Action Plans (RAPs).

The third result concerns the sharing of experience among project partners and stakeholders from different countries. The sharing of local GPs during the FVs improved the personal knowledge of partners, encouraging cross-fertilisation of ideas, giving mutual support and providing important keys for reading the specific gaps and potentials of each region. The regional stakeholders took part in the FVs or received direct feedback during the Stakeholder Group Meetings: this offered them the opportunity to share their perspectives with other international stakeholders, gaining significant insights to improve their businesses and activities. The sharing of knowledge, after each FV, with other national stakeholders allowed for the amplification and acceleration of the exchange of ideas and insights coming from the presented GPs.

The RETRACE Matrix (Pallaro, 2017) has been a valuable tool to match the lessons learned from GPs and the issues emerged from the HD. The Matrix is another helpful instrument to select the best GPs presented in this book since it allows to create a collection based on the utility of the GPs related to regional strategies. The GPs have been divided into six areas according to the Policy Gaps Threads which emerged from the Matrix. This categorisation gives a practical value for those who are approaching a CE and are looking for European practices able to provide useful inputs for policy and regional transition.

Lastly, the applied methodology proposed a direct connection between the GPs and the Policy Gaps (PGs) (cf. chapter 3), aiming at fostering a pro-active role of GPs to provide an overview of the current weaknesses of regional policies and existing solutions when facing regional innovation towards a CE. This link is essential to enhance the transfer of the knowledge acquired within the project to other countries and stakeholders that are involved in policymaking and interested in promoting a CE at regional and European level.

5.2 GUIDELINES AND FUTURE DIRECTIONS FOR REGIONAL TRANSITION TOWARDS CIRCULAR ECONOMY

The GPs Collection illustrated in chapter 3 highlighted some significant gaps that need to be addressed to promote a circular innovation in European regions. Many of the presented GPs were born to start solving these gaps or, conversely, they experienced and stressed some severe obstacles. Overall, five key issues emerged from the selection of the GPs. From them, it is possible to outline five general guidelines that combine five primary Policy Gap Threads with the potential solutions provided by the GPs. In particular, the guidelines relate to:

- ✓ Guideline 1 > Support collaboration between sectors.
- ✓ Guideline 2 > Tailored policy measures on CE + Policy regulations on CE.
- ✓ Guideline 3 > Policy in support to business and market development for CE activities.
- ✓ Guideline 4 > Policy focused on SMEs and micromanufacturing.
- ✓ Guideline 5 > Raising involvement and knowledge of operators concerning the CE.

Guideline 2 brings together two Policy Gap Threads because the selected GPs concerning them offer similar solutions that provide helpful insights on policy regulations about the CE.

The overall goal of the following guidelines is to help regional policymakers to define future directions of actions promoting a CE both at a local and international level.

Guideline 1: Promote Inter-Sectoral Cooperation

A multi-disciplinary and multi-sectoral approach is the cornerstone of a Circular Economy. Industrial systems can reach the zero-waste goal only if they apply a cross-cutting approach to their business models. Looking beyond the current vertical approach, circular innovators are thinking in terms of value chains, proposing a new horizontal approach that combines several activities involving different industrial areas and disciplines.

For example, Horizon Proteins in Scotland is carrying out a new business based on patented technology to obtain under-utilised proteins captured in distillery by-products to create high-quality fish feeding. The collaboration of different stakeholders was essential to develop this technology which combines biology, engineering, and management. Furthermore, the cooperation of diverse sectors (universities, whiskey distilleries, biochemical companies, and fish farmers) is the core business of Horizon Proteins.

Regional policies should support this cooperation between different sectors, promoting Industrial Symbiosis and acting to remove the potential regulatory barriers that may hamper the collaboration of diverse stakeholders.

Guideline 2: Enhance Policies Focused on Circular Economy

Circular activities show unique and disruptive features that often face the lack of tailored policies able to promote this innovative vision of regional development. The interdisciplinary and inter-sectoral approach of the CE requires a large number of heterogeneous stakeholders to manage the input-output flows between different supply chains and industrial areas. All this is based on the new concept of waste (both pre- and post-consumption) as key local resources that should be exploited.

New tools are needed to promote this new vision. The Circular Valley is an innovation hub in The Netherlands that aims at boosting CE-related activities by bringing together different stakeholders that receive practical support regarding space and business guidance. This environment enhances the creation of new synergies among stakeholders, ranging from designers to NGOs, start-ups, SMEs, corporates and governmental organisations.

This kind of regional instruments, as well as tailored policies on this topic, are essential to support sustainable development and encourage the new perspective promoted by a CE. To make new policies efficient, the multiplicity of the actors involved should be taken into careful account, thus supporting a horizontal dialogue between stakeholders to help them collaborate on an equal basis.

Guideline 3: Boost Business Activities around Circular Economy

Many of the selected GPs are playing an essential role in raising awareness of the CE, supporting research and innovation in this area, and creating new ways of making connections between different actors and sectors. In addition to these GPs, it is essential to support entrepreneurial realities and businesses, since they can bring the innovative approach of the CE to market, while providing real benefits for regional development, first by contributing to job creation. A circular innovation should be promoted at all levels, including start-ups and innovative SMEs as well as large enterprises that are seeking to expand their businesses or significantly change their strategies and business models towards a CE.

For example, in Slovenia, the company Iskraemeco is carrying out the Fair Meter Project,

which aims at producing electronic smart metres by taking into account the environmental and social sustainability of the whole supply chain. The company has won a contract of about 470 million EUR to supply the Dutch government with 2.5 million of Fair Meters. Besides the economic benefit to the company and its local and international supply chain, this business project will promote on the market a new circular approach to electronic products.

Specific policy instruments are required to support economic activities related to a CE: public tendering procedures are particularly valuable tools for companies, though entrepreneurial realities also need special support in finding investors, venture capitalists, and managing the start-up phase of their businesses.

Guideline 4: Support the Role of SMEs in Circular Innovation

If attention must be paid to all business activities promoting a CE, policymakers should place particular stress on developing supporting tools for SMEs and micromanufacturing, which are a central part of the European economic fabric. SMEs represent key elements to stimulate the transition towards a CE since they have a high degree of flexibility and the ability to respond promptly to new market needs. However, they need strong support to supply their limited availability of economic resources to invest in research and development of new circular activities and the reduced capability of creating national and trans-national cooperation networks with other stakeholders.

Agrindustria is an Italian SME founded in 1985 with the idea of exploiting the unused value of local agro-industrial and agricultural waste by creating sustainable products for different industrial applications. The company has expanded continuously introducing new products and addressing new sectors, such as automotive, clean tech, cosmetics, and animal husbandry. This has also been possible thanks to the access to regional and international policy instruments that have allowed the company to invest in sustainable products and process innovation, despite its limited size and the lack of human and financial resources to create an internal R&D department. However, the experience of Agrindustria shows how some significant tools, such as the European SME instrument, are still difficult to access and regional policies are fundamental to help small enterprises in bringing forward innovative projects and products related to a CE.

Guideline 5: Raise the Involvement and Training of People Involved in Circular Economy Activities

The transition towards Circular Economy requires, first of all, a radical change of paradigm in the current vision of regional territories and production systems. This revolution is summarised by Bompan (2016) in three key points: rediscover discarded matter as sources of material; end the unused value of products and stop the premature death of materials. Many GPs are promoting initiatives with the objective of consolidating and spreading knowledge and awareness about Circular Economy and sustainable development.

In some cases, GPs are acting at a local level to increase awareness of a CE among citizens and regional actors. There are innovative centres that have been founded with the aim of raising awareness among citizens and other stakeholders. The Edinburgh Remakery for example, presents affordable and creative programmes to satisfy the needs of the communities, businesses, local authorities, and the resource management industry.

In other cases, GPs are aimed at raising worldwide involvement and awareness of issues related to existing problems and a CE. For example, many companies are promoting awareness cam-

paigns concerning some topics related to their business: AquafilSLO, a Slovenian company that created the ECONYL® technology to recover the nylon contained in waste, launched an initiative to collect the discharged fishing nets and inform people about the importance of ending sea and ocean pollution.

Both kinds of initiatives are significant as they involve citizenships and industrial operators raising general awareness of the importance of a CE. In a highly Linear Economy, there is still work to be done to promote a new culture of sustainable production, responsible consumption, and circular innovation.

5.3 THE RETRACE POLICY ROAD MAP FOR A SYSTEMIC APPROACH ON CIRCULAR ECONOMY

The selection of GPs from the RETRACE project provided an overview of the possible strategies to start implementing circular businesses, creating knowledge about the CE and supporting inter-stakeholder cooperation in this area. As explained in chapter 3, the GPs have been matched to the PGs in the RETRACE Matrix. This cross analysis has enabled to identify a set of six threads in Policy Gaps, highlighting the main issues related to the transition towards a CE. These common threads, together with the guidelines presented in the previous paragraph, are the basis for the definition of Regional Action Plans, that will represent the final and most significant outcome of the RETRACE Project.

The goal of this book is to give an overall picture of the state-of-the-art towards a CE emerging from the first phase of the project, thus presenting the current problems that still need to be faced and the existing solutions that are seeking to answer these needs (the GPs Collection). The next publication will provide a comprehensive vision of the methodology and the outcomes obtained through its application. The “RETRACE Policy Road Map for a Systemic Approach on Circular Economy” will include the results achieved by RETRACE with the aim to make visible the benefits of adopting systemic approaches to support the transition towards a CE. It will also provide guidelines including policy recommendations for the update of regional and national RIS3 strategies.

REFERENCES

- Barbero, S. (ed.). (2017). *Systemic Design Method Guide for Policymaking: A Circular Europe on the Way*. Turin, Italy: Allemandi.
- Bistagnino, L. (2011). *Systemic Design: Designing The Productive and Environmental Sustainability*. Bra, Italy: Slow Food Editore.
- Bompan, E. (2016). *Che cos'è l'economia circolare?* Milan, Italy: Edizioni Ambiente.
- Pallaro, A. (2017). “Good Practices and Field Visits”. In S. Barbero (ed.), *Systemic Design Method Guide for Policymaking: A Circular Europe on the Way* (pp. 121–126). Turin, Italy: Allemandi.

This volume aims at clarifying the role of Systemic Design and Circular Economy Good Practices in the transition towards a sustainable development and how policy gaps can be addressed through the implementation of such examples. It is a guide to a selected range of Good Practices that address the most common policy gaps hampering the sustainable development; fostering all actors involved in policy making processes to encourage more effective paths towards the Circular Economy. This publication is addressed to regional policymakers and policy managers and is the second of a three book series published across a four-year period (2016–2020) as part of the RETRACE Project funded by the Interreg Europe Programme.

With contributions by

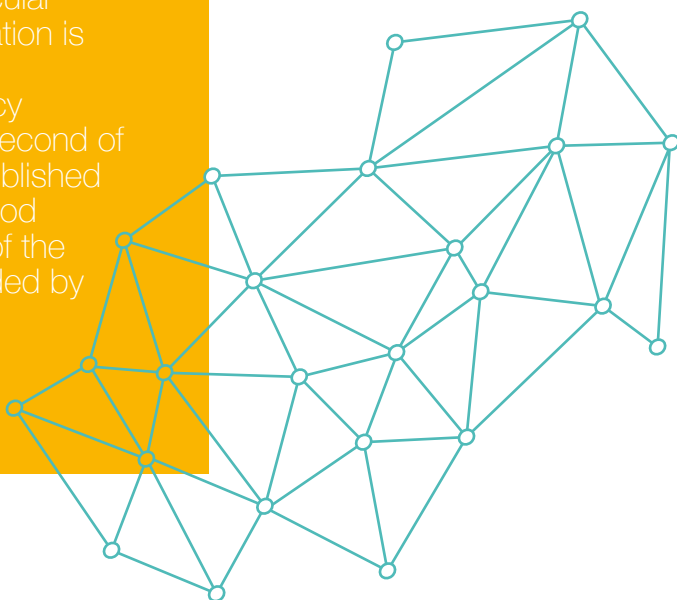
Tiziana Dell'Olmo
Carolina Giraldo Nohra
Eilish O'Loughlin
Agnese Pallaro
Amina Pereno

volume 2

ISBN 978-88-422-2469-3



9 788842 224693



Partners



POLITECNICO
DI TORINO
Dipartimento di
Architettura e Design



REGIONE
PIEMONTE



azaro
fundazioa



Bizkaia
bizkaia



APESA
INSTITUTE OF TECHNOLOGY



REPUBLIC OF SLOVENIA
GOVERNMENT OFFICE FOR DEVELOPMENT
AND EUROPEAN COHESION POLICY



ADR
Agência para o Desenvolvimento Regional
N O R D - E S T